

DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name:

I believe I am the original, first and sole inventor (if only one name is listed below), or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

"Antiviral Activity and Resolution of 2-Hydroxymethyl-5-(5-Fluorocytosin-1-YL)-1,3-Oxathiolane"

the specification of which (check one)

is attached hereto
 was filed on February 12, 1992
as application Serial No. 07/831,153
 and was amended on: _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority
Claimed

(Number)	(Country)	(Day/Month/Year Filed)
(Number)	(Country)	(Day/Month/Year Filed)
(Number)	(Country)	(Day/Month/Year Filed)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of the application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

continuation-in-part of
U.S.S.N. 07/659,760

February 22, 1991

Pending

(Application Serial No.)

Filing Date

Status

(patented, pending, abandoned)

Pending

continuation-in-part of
U.S.S.N. 07/736,089

July 26, 1991

(Application Serial No.)

Filing Date

Status

(patented, pending, abandoned)

Pending

continuation-in-part of
U.S.S.N. 07/473,318

February 1, 1990

(Application Serial No.)

Filing Date

Status

As named inventor, I hereby appoint the following attorney(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

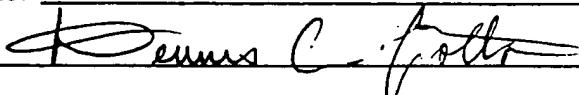
John S. Pratt	29,476
James L. Ewing, IV	30,630
Patrea L. Pabst	31,284
Jamie L. Greene	32,467
Cheryl K. Zalesky	33,052
Dean W. Russell	33,452

Send Correspondence to: Cheryl K. Zalesky, Esq.
 Kilpatrick & Cody
 100 Peachtree Street, Suite 3100
 Atlanta, Georgia 30303

Direct telephone calls to: Cheryl K. Zalesky, (404) 572-6439 or
 John S. Pratt (404)572-6367

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Dennis C. Liotta

Inventor's signature  Date 4/2/92

Residence 793 Post Road Way, Stone Mountain, Georgia 30088

Citizenship U.S.A.

Post Office Address Same as above

Full name of second joint inventor (if any) Raymond F. Schinazi

Inventor's signature _____ Date _____

Residence 1524 Regency Walk Drive, Decatur, Georgia 30033

Citizenship U.S.A.

Post Office Address Same as above

07/831,153

ation

As named inventor, I hereby appoint the following attorney(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

John S. Pratt	29,476
James L. Ewing, IV	30,630
Patrea L. Pabst	31,284
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Full name of sole or first inventor Dennis C. Liotta

Date

Inventor's signature

Residence 793 Post Road Way, Stone Mountain, Georgia 30088

Citizenship U.S.A.

Post Office Address Same as above

Full name of second joint inventor (if any) Raymond F. Schinazi

Date 3.24.92

Inventor's signature

Residence 1524 Regency Walk Drive, Decatur, Georgia 30033

Citizenship U.S.A.

Post Office Address Same as above

Full name of third joint inventor (if any) Woo-Baeg Choi
Inventor's signature WooBaeg Choi Date 3/24/92
Residence 7 Regal Court, North Brunswick, New Jersey 08902
Citizenship Republic of Korea
Post Office Address Same as above

Full name of fourth joint inventor (if any) _____
Inventor's signature _____ Date _____
Residence _____
Citizenship _____
Post Office Address _____

Full name of fifth joint inventor (if any) _____
Inventor's signature _____ Date _____
Residence _____
Citizenship _____
Post Office Address _____

Full name of sixth joint inventor (if any) _____
Inventor's signature _____ Date _____
Residence _____
Citizenship _____
Post Office Address _____



PO 2017

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

DATE: 06/23/92

TO:

CHERYL K. ZALESKY
KILPATRICK & CODY
3100 EQUITABLE BLDG.
100 PEACHTREE ST.
ATLANTA, GA 30303

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UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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ASSIGNOR:

SCHINAZI, RAYMOND F.

DOC DATE: 03/23/92

RECORDATION DATE: 04/10/92 NUMBER OF PAGES 004 REEL/FRAME 6128/0085

DIGEST :ASSIGNMENT OF ASSIGNORS INTEREST

ASSIGNEE:

EMORY UNIVERSITY
A GA CORPORATION
1380 S. OXFORD ROAD, ATLANTA, GA 30322

SERIAL NUMBER 7-831153 FILING DATE 02/12/92
PATENT NUMBER ISSUE DATE 00/00/00

LFR
7/13/92

AP



POZ017

UNITED STATES DEPARTMENT OF COMMERCE
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DATE: 06/23/92

TO:
CHERYL K. ZALESKY
KILPATRICK & CODY
3100 EQUITABLE BLDG.
100 PEACHTREE ST.
ATLANTA, GA 30303

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TRADEMARK OFFICE, ASSIGNMENT BRANCH, NORTH TOWER BUILDING, SUITE 10C35,
WASHINGTON, D.C. 20231

ASSIGNOR:
CHOI, WOO-BAEG

DOC DATE: 03/24/92

RECORDATION DATE: 04/10/92 NUMBER OF PAGES 004 REEL/FRAME 6128/0093

DIGEST :ASSIGNMENT OF ASSIGNORS INTEREST

ASSIGNEE:
EMORY UNIVERSITY
A GA CORPORATION
1380 S. OXFORD ROAD, ATLANTA, GA 30322

SERIAL NUMBER 7-831153 FILING DATE 02/12/92
PATENT NUMBER ISSUE DATE 00/00/00

DOCKED
BY: _____
DATE: _____

LCR
7/13/92

8



POZ 012

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
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OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

RECEIVED

DATE: 06/23/92

TO:
CHERYL K. ZALESKY
KILPATRICK & CODY
3100 EQUITABLE BLDG.
100 PEACHTREE ST.
ATLANTA, GA 30303

KILPATRICK & CODY

UNITED STATES PATENT AND TRADEMARK OFFICE
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ASSIGNOR:
LIOTTA, DENNIS C.

DOC DATE: 04/03/92

RECORDATION DATE: 04/10/92 NUMBER OF PAGES 004 REEL/FRAME 6128/0089

DIGEST :ASSIGNMENT OF ASSIGNEES INTEREST

ASSIGNEE:
EMORY UNIVERSITY
A GA CORPORATION
1380 S. OXFORD ROAD, ATLANTA, GA 30322

SERIAL NUMBER 7-831153 FILING DATE 02/12/92
PATENT NUMBER ISSUE DATE 00/00/00

DOCKETED: _____
BY: LFR
DATE: 7/13/92

ASSIGNMENT

We, Dennis C. Liotta of 793 Post Road Way, Stone Mountain, Georgia 30088; Raymond F. Schinazi of 1524 Regency Walk Drive, Decatur, Georgia 30033; and Woo-Baeg Choi of 7 Regal Court, North Brunswick, New Jersey 08902, in consideration of One Dollar and other valuable consideration paid to us by Emory University, a Georgia corporation, having its principal place of business at 1380 S. Oxford Road, Atlanta, Georgia 30322, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said Emory University, its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in "Antiviral Activity and Resolution of 2'-Hydroxymethyl-5-(5-Fluorocytosin-1-YL)-1,3-Oxathiolane" described in the patent application filed February 12, 1992 in the United States Patent and Trademark Office, which is a continuation-in-part application of (1) U.S.S.N. 07/659,650 entitled "Method for the Synthesis, Compositions and Use of 2'-Deoxy-5-Fluoro-3'-Thiacytidine and Related Compounds", filed on February 22, 1991, by Dennis C. Liotta, Raymond F. Schinazi, and Woo-Baeg Choi, which is a continuation-in-part application of U.S.S.N. 07/473,318, entitled "Method and Compositions for the Synthesis of BCH-189 and Related Compounds", filed on February 1, 1990, by Dennis C. Liotta and Woo-Baeg Choi and, (2) a continuation-in-part of U.S.S.N. 07/736,089 entitled "Method of Resolution and Antiviral Activity of 1,3-Oxathiolane Nucleoside Enantiomers" filed on July 26, 1991, by Dennis C. Liotta, Raymond F. Schinazi, and Woo-Baeg Choi, which is a continuation-in-part of U.S.S.N. 07/659,760, referenced above and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense or charges, hereafter to execute all applications, amended specifications, deeds or other instruments, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this _____ day of _____, 1992.

Dennis C. Liotta

State of Georgia) ss.
County of _____)

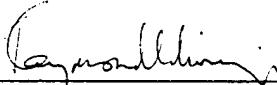
Then personally appeared the above named Dennis C. Liotta and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 1992.

REF 6128 NAME 087

Notary Public

U.S.S.N. 07/831,153
Filed: February 12, 1992
Assignment

WITNESS my hand and seal this 23rd day of March,
1992.


Raymond F. Schinazi

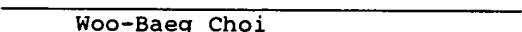
REF# 6128 FRAME 088

State of Georgia ss.
County of DeKalb

Then personally appeared the above named Raymond F. Schinazi
and acknowledged the foregoing instrument to be his free act and
deed, before me, this 23rd day of March, 1992.

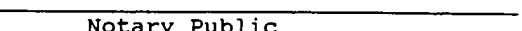

Notary Public, DeKalb County, Georgia
My Commission Expires Apr. 11, 1994

WITNESS my hand and seal this _____ day of _____,
1992.


Woo-Baeg Choi

State of New Jersey) ss.
County of _____)

Then personally appeared the above named Woo-Baeg Choi and
acknowledged the foregoing instrument to be his free act and deed,
before me, this _____ day of _____, 1992.


Notary Public

RECORDED
PATENT & TRADEMARK OFFICE

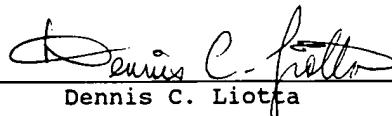
APR 10 92

ASSIGNMENT

We, Dennis C. Liotta of 793 Post Road Way, Stone Mountain, Georgia 30088; Raymond F. Schinazi of 1524 Regency Walk Drive, Decatur, Georgia 30033; and Woo-Baeg Choi of 7 Regal Court, North Brunswick, New Jersey 08902, in consideration of One Dollar and other valuable consideration paid to us by Emory University, a Georgia corporation, having its principal place of business at 1380 S. Oxford Road, Atlanta, Georgia 30322, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said Emory University, its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in "Antiviral Activity and Resolution of 2-Hydroxymethyl-5-(5-Fluorocytosin-1-YL)-1,3-Oxathiolane" described in the patent application filed February 12, 1992 in the United States Patent and Trademark Office, which is a continuation-in-part application of (1) U.S.S.N. 07/659,650 entitled "Method for the Synthesis, Compositions and Use of 2'-Deoxy-5-Fluoro-3'-Thiacytidine and Related Compounds", filed on February 22, 1991, by Dennis C. Liotta, Raymond F. Schinazi, and Woo-Baeg Choi, which is a continuation-in-part application of U.S.S.N. 07/473,318, entitled "Method and Compositions for the Synthesis of BCH-189 and Related Compounds", filed on February 1, 1990, by Dennis C. Liotta and Woo-Baeg Choi and, (2) a continuation-in-part of U.S.S.N. 07/736,089 entitled "Method of Resolution and Antiviral Activity of 1,3-Oxathiolane Nucleoside Enantiomers" filed on July 26, 1991, by Dennis C. Liotta, Raymond F. Schinazi, and Woo-Baeg Choi, which is a continuation-in-part of U.S.S.N. 07/659,760, referenced above and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense or charges, hereafter to execute all applications, amended specifications, deeds or other instruments, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

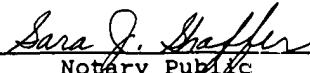
WITNESS my hand and seal this 2nd day of April, 1992.



Dennis C. Liotta

State of Georgia), ss.
County of Dekalb)

Then personally appeared the above named Dennis C. Liotta and acknowledged the foregoing instrument to be his free act and deed, before me, this 2 day of April, 1992.



Sara J. Shaffer
Notary Public

Notary Public, DeKalb County, Georgia
My Commission Expires Feb. 7, 1994

REF ID: A28 FRAME 091

RECORDED
PATENT & TRADEMARK OFFICE

U.S.S.N. 07/831,153
Filed: February 12, 1992
Assignment

APR 10 92

WITNESS my hand and seal this _____ day of _____,
1992.

REEL 6128 FRAME 092

Raymond F. Schinazi

State of Georgia) ss.
County of _____)

Then personally appeared the above named Raymond F. Schinazi
and acknowledged the foregoing instrument to be his free act and
deed, before me, this _____ day of _____, 1992.

Notary Public

WITNESS my hand and seal this _____ day of _____,
1992.

Woo-Baeg Choi

State of New Jersey) ss.
County of _____)

Then personally appeared the above named Woo-Baeg Choi and
acknowledged the foregoing instrument to be his free act and deed,
before me, this _____ day of _____, 1992.

Notary Public

54

ASSIGNMENT

We, Dennis C. Liotta of 793 Post Road Way, Stone Mountain, Georgia 30088; Raymond F. Schinazi of 1524 Regency Walk Drive, Decatur, Georgia 30033; and Woo-Baeg Choi of 7 Regal Court, North Brunswick, New Jersey 08902, in consideration of One Dollar and other valuable consideration paid to us by Emory University, a Georgia corporation, having its principal place of business at 1380 S. Oxford Road, Atlanta, Georgia 30322, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said Emory University, its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in "Antiviral Activity and Resolution of 2-Hydroxymethyl-5-(5-Fluorocytosin-1-YL)-1,3-Oxathiolane" described in the patent application filed February 12, 1992 in the United States Patent and Trademark Office, which is a continuation-in-part application of (1) U.S.S.N. 07/659,650 entitled "Method for the Synthesis, Compositions and Use of 2'-Deoxy-5-Fluoro-3'-Thiacytidine and Related Compounds", filed on February 22, 1991, by Dennis C. Liotta, Raymond F. Schinazi, and Woo-Baeg Choi, which is a continuation-in-part application of U.S.S.N. 07/473,318, entitled "Method and Compositions for the Synthesis of BCH-189 and Related Compounds", filed on February 1, 1990, by Dennis C. Liotta and Woo-Baeg Choi and, (2) a continuation-in-part of U.S.S.N. 07/736,089 entitled "Method of Resolution and Antiviral Activity of 1,3-Oxathiolane Nucleoside Enantiomers" filed on July 26, 1991, by Dennis C. Liotta, Raymond F. Schinazi, and Woo-Baeg Choi, which is a continuation-in-part of U.S.S.N. 07/659,760, referenced above and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And we agree, for ourselves and our executors and administrators, with said corporation and its successors and assigns but at its or their expense or charges, hereafter to execute all applications, amended specifications, deeds or other instruments, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

REEL 128 FRAME 095

And we do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this _____ day of _____, 1992.

Dennis C. Liotta

State of Georgia) ss.
County of _____)

Then personally appeared the above named Dennis C. Liotta and acknowledged the foregoing instrument to be his free act and deed, before me, this _____ day of _____, 1992.

Notary Public

U.S.S.N. 07/831,153
Filed: February 12, 1992
Assignment

WITNESS my hand and seal this _____ day of _____,
1992.

REF ID: A6128 FRM 096

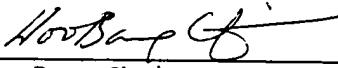
Raymond F. Schinazi

State of Georgia) ss.
County of _____)

Then personally appeared the above named Raymond F. Schinazi
and acknowledged the foregoing instrument to be his free act and
deed, before me, this _____ day of _____, 1992.

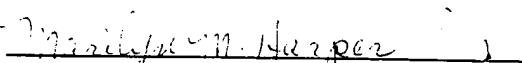
Notary Public

WITNESS my hand and seal this 24th day of March,
1992.


Woo-Baeg Choi

State of New Jersey) ss.
County of Union)

Then personally appeared the above named Woo-Baeg Choi and
acknowledged the foregoing instrument to be his free act and deed,
before me, this 24 day of March, 1992.


Notary Public

MARILYN M. HARPER
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Aug. 1, 1994

RECORDED
PATENT & TRADEMARK OFFICE
APR 10 92